

IN THE DRAWINGS:

The drawings have been amended as shown in the replacement sheet enclosed herewith. Specifically, in Fig. 3, the optics and lead lines for the reference numerals “32” and “34” are deleted and replaced with box (Spatial Filter and Relay Imaging Optics) with lead line and reference numeral --32--; the optics and lead lines for the reference numerals “38” and “40” are deleted and replaced with box (Spatial Filter and Relay Imaging Optics) with lead line and reference numeral --38--; and the optics and lead lines for the reference numerals “46” and “48” are deleted and replaced with box (Spatial Filter and Relay Imaging Optics) with lead line and reference numeral --46--.

## REMARKS

Claims 1 – 15 are presently pending. In the above-identified Office Action, the Examiner objected to Claims 3 and 9 under 35 U.S.C. § 112, second paragraph, and rejected Claims 1, 2, 4 and 10 – 14 under 35 U.S.C. § 102(b) as being anticipated by Campbell *et al.* ('323) hereinafter 'Campbell'. Claims 1 – 6 were rejected under 35 U.S.C. § 102(b) as being anticipated by Suzuki ('175). Claims 7 – 9 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Campbell in view of Abrams *et al.* ('268) hereinafter 'Abrams'.

By this Amendment, Applicants have made certain changes in the Specification and Drawings to bring the Specification and Drawings into conformity with one another. No new matter has been added by these changes. The Claims have been amended to address the rejections under 35 U.S.C. § 112 and to more clearly define the patentably distinct features thereof. For the reasons set forth more fully below, the subject application is deemed to properly present claims patentable over the prior art. Reconsideration, allowance and passage to issue are respectfully requested.

As noted previously, the present invention addresses the need in the art for a system or method for improving phase conjugation fidelity in high power phase conjugate lasers and other electro-magnetic systems. In accordance with the invention, a novel spatial filter is taught. The inventive filter is adapted to increase the angular spread of non-conjugated energy in a beam and suppress this energy to improve the efficiency of the system without suppression of conjugated energy.

The invention is set forth in Claims of varying scope of which Claim 1 is illustrative. Claim 1 recites:

1. In a system having means for providing a conjugated beam and a non-conjugated beam, a spatial filter comprising:  
    means for increasing angular spread of said non-conjugated beam  
    and  
    means for suppressing said angular spread non-conjugated beam  
    **without suppressing said conjugated beam.** (Emphasis added.)

None of the references, taken alone or in combination, teach, disclose or suggest the invention as presently claimed. That is, none of the references teach, disclose or suggest a spatial filter having means for increasing the angular spread of a non-conjugated beam and means for suppressing said spread non-conjugated beam without suppressing said conjugated beam.

In the above-identified Office Action, the Examiner relied on Campbell, Suzuki and Abrams in the rejections of the Claims. Campbell purports to teach a local reference beam generator. The Examiner suggests that this reference teaches means for increasing angular spread non-conjugated energy and means for suppressing said spread non-conjugated energy. However, amongst other shortcomings, Campbell clearly does not teach means for suppressing the angularly spread non-conjugated energy **without suppressing the conjugated energy thereof**.

Suzuki purports to teach opto-electric logic elements. The Examiner asserts Suzuki teaches means for increasing angular spread and means for suppressing. However, Suzuki also fails, *inter alia*, to teach, disclose or suggest means for suppressing the angularly spread non-conjugated energy **without suppressing the conjugated energy thereof** as presently claimed.

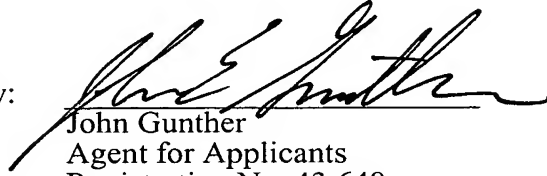
Abrams was cited for its teaching of a conjugate amplifier. However, Abrams also does not teach, disclose or suggest means for suppressing the angularly spread non-conjugated energy **without suppressing the conjugated energy thereof** as presently claimed.

Hence, the present Claims should be allowable. Reconsideration, allowance and passage to issue are respectfully requested.

Respectfully submitted,  
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